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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,892	08/27/2002	Thomas M. Breuel	111744	3616
27074 7590 11/01/2007 OLIFF & BERRIDGE, PLC. P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			EXAMINER PAULA, CESAR B	
			ART UNIT 2178	PAPER NUMBER
			NOTIFICATION DATE 11/01/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/064,892

Applicant(s)

BREUEL ET AL.

Examiner

CESAR B. PAULA

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-13,16 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-13, 16, and 18-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to the amendment filed on 8/24/2007.

**This action is made Final.**

2. In the amendment, claims 1, 3-13, 16, and 18-28 are pending in the case. Claims 1, 14, and 16 are independent claims.

3. The rejections of claims 1, 3-16, and 18-28 rejected under 35 U.S.C. 102(e) as being anticipated by Tuli (USPat.# 6633314, 10/14/2003, filed 2/16/2000), have been withdrawn as necessitated by the amendment.

### ***Priority***

4. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 119(e), and based on U.S provisional application # 60/360,171 filed on 3/1/2002, which papers have been placed of record in the file.

### ***Drawings***

5. The drawings filed on 8/27/2002 have been approved by the Examiner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-13, 16, and 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thacker et al (USPat.# 7028258 B1, 4/2006, filed on 10/1999), in view of Balabanovic et al (USPat. 6895552 B1, 5/2005, filed on 5/31/2000).

Regarding independent claim 1, Thacker discloses dividing a document, which is an electronic version of a paper document (col.3, lines 59-67, and col.5, lines 56-64). Thacker fails to explicitly teach *deconstructing a document in a page image format into a set of segmented image elements, synthesizing the deconstructed document into an intermediate data structure*. However, Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks(col.5, lines 50-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to deconstruct a scanned document, and ocr it to convert it into text that can be used to pour the document into slots that fit the screen size of the device to display the document, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Furthermore, Thacker shows the pagination of the document by pouring the text into slots so as to fit, and display on the fly the document on the screen of the device—*distilling the intermediate data structure for redisplay by converting the intermediate data structure into a format usable for reflow on an arbitrarily sized display structure, wherein the intermediate data structure is automatically adaptable at the time of display to constraints of any display device or circumstance of viewing* (col.2, lines 1-19, col.5, lines 50-col.6, line 30).

Regarding claim 3, which depends on claim 2, Thacker discloses dividing a document, which is an electronic version of a paper document (col.3, lines 59-67, and col.5, lines 56-64)--*logical segmentation of data*. Thacker fails to explicitly teach *physical segmentation of data*. However, Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks (col.5, lines 50-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to deconstruct a scanned document, and ocr it to convert it into text that can be used to pour the document into slots that fit the screen size of the device to display the document, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Regarding claim 4, which depends on claim 1, Thacker discloses dividing a document, which is an electronic version of a paper document (col.3, lines 59-67, and col.5, lines 56-64). Thacker fails to explicitly teach *the image elements comprises at least one of blocks, lines...* However, Balabanovic teaches a well-known technique of decomposing a scanned bitmapped

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image into blocks(col.5, lines 50-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to deconstruct a scanned document, and ocr it to convert it into text that can be used to pour the document into slots that fit the screen size of the device to display the document, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Regarding claim 5, which depends on claim 1, Thacker discloses dividing a document, which is an electronic version of a paper document (col.3, lines 59-67, and col.5, lines 56-64). Thacker fails to explicitly teach *converting non-text image areas, Layout properties and segmented image areas into the intermediate data structure*. However, Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks to perform layout of both character and pictures(col.5, lines 50-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to deconstruct a scanned document, and convert it into layout format that can be used to pour the document into slots that fit the screen size of the device to display the document, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

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Regarding claim 6, which depends on claim 1, Thacker discloses dividing a document, which is an electronic version of a paper document (col.5, lines 56-64). Thacker fails to explicitly teach *synthesizing the set of segmented image elements into an intermediate data structure includes integrating at least one of bitmapped images in an intelligible display layout and links to non-textual elements*. Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks to perform layout of both character and pictures(col.5, lines 50-67). However, it would have been obvious to one of ordinary skill in the art at the time of the invention to convert the scanned text, and images to, and intelligible layout, and to link the images' locations to the webpage using a well-known markup language, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Regarding claim 7, which depends on claim 6, Thacker discloses dividing a document, which is an electronic version of a paper document (col.5, lines 56-64) -- *images of words in reading order*. Thacker fails to explicitly teach *the bitmapped images*. Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks to perform layout of both character and pictures(col.5, lines 50-67). However, it would have been obvious to one of ordinary skill in the art at the time of the invention to convert the scanned text, and images to, and intelligible layout, and to link the images' locations to the webpage using a well-known markup language, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would

provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Regarding claim 8, which depends on claim 1, Thacker shows the pagination in memory of the document by pouring the text into slots so as to fit, and display on the fly the document on the screen of the device (col.2, lines 1-19, col. 4, lines 42-51, col.5, lines 50-col.6, line 30).

Regarding claim 9, which depends on claim 1, Thacker shows the pagination of the document by pouring the text into slots so as to fit in complete words, and display on the fly the document on the screen of the device (col.2, lines 1-19, col.5, lines 50-col.6, line 30).

Regarding claim 10, which depends on claim 1, Thacker shows the pagination, and display of the document, such as magazines, webpages, etc—*Internet browsable format* --, which is a version of a paper document (col.3, lines 59-67, col.4, lines 32-67).

Regarding claim 11, which depends on claim 1, Thacker shows the repagination of the document by pouring the text into slots so as to fit, and display on the fly the document on the screen of a specific device (col.2, lines 1-19, col.5, lines 50-col.6, line 30).

Regarding claim 12, which depends on claim 1, Thacker shows the pagination of the document by pouring the text into slots so as to fit, and display on the fly the document on the screen of a specific device (col.2, lines 1-19, col.5, lines 50-col.6, line 30).



Regarding claim 13, which depends on claim 1, Thacker shows the repagination of the document by pouring the text into slots so as to fit, and display on the fly the document on the screen of the device (col.2, lines 1-19, col.5, lines 50-col.6, line 30).

Regarding claim 16, limitations *an input/output device ... a distilling circuit*...are directed towards a computer system for implementing the steps found in claims 1, and therefore are similarly rejected.

Moreover, Thacker fails to explicitly disclose— *deconstruct the document into image areas, and segmented image elements, synthesizes the non-text image areas, the layout properties, and the set of segmented image elements into an intermediate data structure--* (col.2, lines 35-64, fig.2). Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks to perform layout of both character and pictures(col.5, lines 50-67). However, it would have been obvious to one of ordinary skill in the art at the time of the invention to convert the scanned text, and images to, and intelligible layout of the document, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Furthermore, Thacker shows the repagination of the document by pouring the text into slots so as to fit, and display on the fly the document on the screen of the device (col.2, lines 1-19, col.5, lines 50-col.6, line 30)—*distilling the intermediate data structure for redisplay in a format usable for an arbitrarily sized display structure.*

Claims 18-20, and 22-25 are directed towards a computer system for implementing the steps found in claims 3, 6-7, and 10-13 respectively, and therefore are similarly rejected.

Regarding claim 21, which depends on claim 16, Thacker shows the repagination in memory of the document by pouring the text into slots so as to fit—*distilled document*--, and display on the fly the document on the screen of the device (col.2, lines 1-19, col.4, lines 41-67, col.5, lines 50-col.6, line 30).

Regarding claim 26, which depends on claim 16, Thacker shows the repagination of the document by pouring the text into slots so as to fit, and display on the fly the document on the screen of the device (col.2, lines 1-19, col.5, lines 50-col.6, line 30)-- *the distilling circuit, routine or application converts the marked format into at least one of an electronic book format, an Internet browsable format that can accept images and a print format*. Thacker fails to explicitly teach *the deconstructing circuit, routine or application analyzes page layout and converts a sequence of page images into a sequence of document element images captured in a tagged format*; Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks to perform layout of both character and pictures(col.5, lines 50-67). However, it would have been obvious to one of ordinary skill in the art at the time of the invention to convert the scanned text, and images to, and intelligible layout, and to link the images' locations to the webpage using a well-known markup language, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for

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display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Regarding claim 27, which depends on claim 16, Thacker shows the repagination of the document by sequentially pouring the text into slots so as to fit, and display on the fly the document on the screen of the device (col.2, lines 1-19, col.5, lines 50-col.6, line 30)-- *wherein the format preserves at least one of reading order and logical page layout properties*. Thacker fails to explicitly teach *wherein the tagged format*; Balabanovic teaches a well-known technique of decomposing a scanned bitmapped image into blocks to perform layout of both character and pictures(col.5, lines 50-67). However, it would have been obvious to one of ordinary skill in the art at the time of the invention to convert the scanned text, and images to, and intelligible layout, and to link the images' locations to the webpage using a well-known markup language, because of all the reasons found in Thacker including optimizing an electronic version of a paper document for display in different devices (col.2, lines 11-19). This would provide the flexibility needed to display the electronic version of the paper document to accommodate it to the size of the screen.

Regarding claim 28, which depends on claim 26, Thacker shows the repagination—*segmentation algorithm* -- of the document, and pouring out the text into slots, by determining whether the words or elements fit on a line, so as to fit—*background structure analyzer*-, and display on the fly the document on the screen of the device (col.2, lines 1-19, col.5, lines 50-col.6, line 30).

***Response to Arguments***

7. Applicant's arguments filed on 8/24/2007 have been fully considered , and they are moot in light of the new rejections above as necessitated by the amendment.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bobrow et al (USPub. # US 20020029232 A1), TextBridge Pro 96, Website Product Specification, Archive.org, 1997, Sakaguchi et al, "A Browsing Tool for Multilingual Documents for Users without Multilingual Fonts", ACM, 1996, pp.63-71, and "Welcome to The First WWW Server in Bulgarian with DeleGate and CIILIB", <http://baka.aubg.bg>, Archive.org, 2/1997.

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (571) 272-4128. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong, can be reached on (571) 272-4124. However, in such a case, please allow at least one business day.


Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://portal.uspto.gov/external/portal/pair>. Should you have any questions about access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 or 571 272-1000 (USA or Canada).

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CESAR PAULA  
PRIMARY EXAMINER  
10/26/2007